THE CLAIMS:

1. (Previously presented) A plasma processing apparatus having a bent wave guide, comprising:

a plurality of plasma processing units, each having a vacuum processing chamber including a mounting stage for mounting a substrate with a fixed reference point and a wave guide bent at an angle for introducing high frequency waves into said vacuum processing chamber for converting process gas to plasma by high frequency waves and processing said substrate by said plasma; and

a common transfer chamber airtightly connected to said plurality of plasma processing units and including a transfer arm adapted to transfer said substrate to said mounting stage in a transfer direction that is fixed for each of said plurality of plasma processing units, and is adapted such that said reference point of said substrate is always positioned the same with respect to said transfer arm,

wherein for each of said plurality of plasma processing units, the position of said wave guide in relation to said transfer direction of said transfer arm is the same.

2. (Previously presented) The plasma processing apparatus according to Claim 1, wherein the apparatus is configured to perform a film forming process.

3. (Previously presented) The plasma processing apparatus according to Claim 1, wherein the apparatus is configured to perform an etching process.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

4. (Original) The plasma processing apparatus according to Claim 1, further comprising:

positioning means for positioning said reference point of said substrate to said transfer arm.

5. (Original) The plasma processing apparatus according to Claim 1, wherein each of said plasma processing units is connected to said transfer chamber through a transfer port and said transfer direction of said transfer arm is on a straight line connecting the center of said mounting stage and the center of said transfer port.

6. (Original) The plasma processing apparatus according to Claim 1, wherein each of said plasma processing units converts a process gas to plasma using electron cyclotron resonance by high frequency waves and an electric field.

7. (Previously presented) The plasma processing apparatus according to Claim 1, wherein said wave guide of each of said plasma processing units has the same length and the same sectional shape.

8. (Previously presented) A plasma processing method for performing a predetermined process for a substrate by a plasma processing apparatus having a bent wave guide comprising a plurality of plasma processing units, each having a vacuum processing chamber including a mounting stage for mounting a substrate with a fixed reference point and a wave guide bent at an angle for introducing high frequency waves

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into said vacuum processing chamber for converting process gas to plasma by high frequency waves and processing said substrate by said plasma; and a common transfer chamber airtightly connected to said plurality of plasma processing units and including a transfer arm for transferring said substrate to said mounting stage in a transfer direction that is fixed for each of said plurality of plasma processing units, and wherein for each of said plasma processing units, the position of said wave guide in relation to said transfer direction of said transfer arm being the same, comprising the steps of:

transferring said substrate with said reference point to said mounting stages of said plasma processing units from said transfer chamber, said reference point of said substrate being positioned the same in each of said plasma processing units with respect to said wave guide, and

performing a plasma process for said substrate while the position of said reference point of said substrate in relation to said wave guide is kept the same for each of said plasma processing units.

9. Cancelled.

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HENDERSON
FARABOW
GARRETT &
DUNNER LLP

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